Editorial

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Watch the Wasabe!

Severe Palmar Hyperhidrosis treated by Transthoracic Endoscopic Sympathectomy

The manuscript by William Lau, Jeffrey Lee, Collin Dang, and Lorrin Lee deals with a unique surgical procedure to help the "quality of life". The authors performed the procedure on only eight patients to date, and despite some adverse effects of the surgery, all patients reported an improvement in their "quality of life".

This severe form of palmar hyperhidrosis is not just seen in the dermatologist's office. All physicians encounter patients with this sweating *in extremus* of the hands. Estimates of this condition range from 0.6-1% of the population.

It must be emphasized that transthoracic endoscopic sympathectomy should never be considered first-line treatment for palmar hyperhidrosis.

Most people who have hyperhidrosis are treated with conservative less aggressive methods, including:

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Medical School Hotline

The Geriatric Medicine Fellowship Program at the John A. Burns School of Medicine, University of Hawaii

Kamal Masaki MD, Associate Program Director, and Patricia Lanoie Blanchette MD, MPH, FACP, Program Director

Background: By the year 2030, one in five Americans will be 65 or older.[1] Public health measures and advancing medical science have combined to enable many more people to live out an ever increasing life expectancy. In social terms, this means that more families have a greater number of living generations, helping to root children in the cultural history of their own families. The social value of this phenomenon is immeasurable. The fastest growing segment of the population is those aged 85 and older. Life expectancy in Hawaii is the highest in the nation.[2]

In the 1970's the Institute of Medicine of the National Academy of Sciences concluded that Geriatric Medicine should be taught in medical schools and that it should emerge as a recognized specialty for teaching, research and practice. In the year 2000, a conservative estimate of the number of geriatricians needed was 30,000 nationally. However, there were only 9,000, making Geriatric Medicine a critical shortage specialty.[3,4] Some states do not have any geriatricians, and some medical schools have been unable to fill faculty positions in geriatrics for years. In response to this national and Hawaii shortage, the Geriatric Medicine Fellowship Program was established in 1986 following the establishment of the Geriatric Medicine Program at the John A. Burns School of Medicine in 1984.[5]

The program began with 1 fellow, and has grown to 13 fellows each year in academic year 2001-2002. Funding for these 13 positions is from the following sources: Kuakini Medical Center, 5; Department of Veterans Affairs, 5; Kaiser, 1; the Queen's Medical Center, 1; and the PACE program at Maluhia, 1. One year of clinical training is required for eligibility for the Certificate of Added Qualifications (CAQ) in Geriatric Medicine. The fellowship program has been accredited continuously since 1987, the first year that accreditation was offered in this field.

The faculty in Geriatric Medicine has expertise in medical education, research, and clinical medicine. The core faculty now number 24, with expertise in Geriatric Medicine, Geriatric Psychiatry, Epidemiology, Neurology, and Cardiology. In addition, there are 14 associate faculty who participate in the educational experience of the fellows, with expertise in Gerontology, Geriatric Rehabilitation, Geriatric Dentistry, Audiology, Psychology, and Gerontechnology.

The Fellowship Program: Applicants for the program that leads to the Certificate of Added Qualifications (CAQ) in Geriatric Medicine must be residency trained and board eligible in either Internal Medicine or Family Practice. There are 2 tracks: a 1-year clinical track for those planning a career in primary care, and a 2- or 3- year academic track for those interested in research, medical education, medical administration, or consultative medicine. Initially, two

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Topical Antiperspirants

Antiperspirants, usually applied to the axillae, may also work on the palms. While these products help to varying degrees from most published studies dealing with sweating of the axillae, a trial of a product like Procter & Gamble's Secret Platinum Protection might be considered. The efficacy of topical antiperspirants drug systems reported by the U.S. Food and Drug Administrations OTC Antiperspirants Review Panel ranged from 14 - 70% for axillary sweating.[1] Palmar sweating was not studied.

Many OTC products contain aluminum chlorhydroxide. Some, like Certain Dri, contain aluminum chloride. Prescription products include Drysol which is a 20% aluminum chloride solution in alcohol. Glutaraldehyde and formaldehyde have also been used.

Electric devices

A home iontophoresis Dryonic is available by prescription from General Medical Corp, Los Angeles, California. This is a battery device supplying galvanic current to the palms, soles or axillae.[2]

Oral medications

Over the years many oral preparations have been used. Anticholinergics such as Pro-Banthine, liquid forms of atropine such as tincture of belladonna, and various tranquilizer/anticholinergics such as Atarax have been used with varied results.

Injection Therapy

There has been some recent interest in Botulinum toxin (Botox) injections for hyperhidrosis.[3] Multiple Botox injections into the palms are required. Problems include pain and burning, weakness of small hand muscles and short duration of effect. This is an off-label use of Botox.

Surgical procedures

Excision of axillary sweat glands has also been done, but obviously not for palmar sweating. Dorsal sympathectomy has been a common procedure but because of complications including 50% regrowth of nerves is done less today.

For several years we had to refer patients to the mainland or to Sweden to obtain this surgery. Drott and associates in Boras, Sweden treated 850 patients and reported their findings in 1995.[4] With the worldwide general acceptance of transthoracic endoscopic sympathec-

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500-1000 mg initially, then 500 mg q 8 hr
- ACTH 40 units IM q 6-12 hours
- Prednisone 20-40 mg daily or equivalent IM or IV

Suppression of Crystal-induced Inflammation
- Joint aspiration or lavage and injection of corticosteroid
- IV colchicine 1 mg in 20 ml normal saline over 10-20 minutes; may repeat once. Do not infiltrate. Avoid if renal or hepatic failure.

Prevention of Intercritical Gouty Attacks
- After initial response, doses can be tapered off over 7-10 days
- Then maintain on prophylactic colchicine 0.6 mg once or twice a day to prevent recurrent attacks
- If colchicine not tolerated, may use an NSAID
- Decreases frequency of gouty attacks about 50%

Colchicine Prophylaxis for Pseudogout
– Bowles et al. *Arthritis Rheum* 1986;29:S-36

- Randomized, 1 year study

		Median Attacks/year	
	N	Pre-study	During Study
Colchicine 0.6 mg b.i.d.	10	6.5	0.5
Placebo	10	5.5	6.5

Colchicine
- Alkaloid extract of colchicum autumnale: meadow saffron
- Interferes with microtubules of neutrophils →↓motility, chemotaxis, and chemotactic factor release at therapeutic concentrations
- Higher concentrations arrest cell division →cytopenias
- Uniquely effective for acute gout

Colchicine Metabolism
- Rapidly absorbed; to 50% protein bound;
- Concentrates in leukocytes; binds to tubulin
- Plasma half-life 20 min, but present in leukocytes for 2 to 3 days and still measurable 10 days later
- Excreted in bile, feces and urine

Colchicine Toxicity
- Minimal with usual doses of 0.6 to 1.2 mg daily
- D, abdominal cramping, N, V: common with oral dosing
- Chronic higher doses: cytopenias, peripheral neuritis, hair loss, amenorrhea, oligospermia, myopathy
- Overdoses: severe hemorrhagic gastroenteritis, renal failure, hepatic failure, seizures
- Fatal doses as low as 7 mg; >40 mg usually fatal

Frequent Mistakes in Management of Gout
- Forget to aspirate joint or tophus to establish Dx
- Forget to treat both inflammation and hyperuricemia
  - NSAIDs and colchicine have no effect on serum or tissue urates
  - Allopurinol and probencid are not analgesic or antiinflammatory
- Forget that successful treatment must continue forever
- Confuse chronic polyarticular tophaceous gout with RA

Corrections to the February issue

The following two references to *"Barriers to Good End-of-life Care: A Physician Survey,"* by Reiko Kayashima MPH and Kathryn L. Braun DrPH, (pp. 40-44 and p.47) were mistakenly omitted.

30. Lynn J, Arkes HR, Stevens M, Cohn F, Koenig B, Fox E, et al. Rethinking fundamental assumptions: SUPPORT, Implications for future reform. *J Am Geriatr Soc* 2000;48:s214-21.

31. Sullivan MD, Ganzini L, Stuart JY. Should psychiatrists serve as gatekeepers for physician-assisted suicide? *Hastings Cent Rep* 1998;28:24-31.

"Cancer Research Center Hotline," continued from p. 128

(88%), that tailored materials were rated more favorably than standard materials, and that the tailored materials group reported improved sun protection habits ($p<.05$), greater perceived benefits of sun protection ($p<.05$), and trends toward improved knowledge, more adequate sunscreen application, and higher perceived risk for skin cancer.

The month of May includes observances of Skin Cancer Awareness Month and National Melanoma/Skin Cancer Prevention and Detection Month. The Hawaii Skin Cancer Coalition, a statewide organization of health professionals, agencies, and consumers provides increased public education on skin cancer prevention. Skin cancer prevention research will continue to be an area of particular emphasis at the Cancer Research Center of Hawaii. For more information, please visit the website of the Cancer Research Center of Hawaii (www.crch.org).

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3. Geller A, Glanz K, Shigaki D, Isnec MR, Sun T, Maddock J. Impact of a skin cancer prevention program in aquatics settings: The *Pool Cool* program in Hawaii and Massachusetts. *Preventive Medicine*, 2001, in press.
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6. Glanz K, Lew RA, Song V, Murakami-Akatsuka L. Effects of a skin cancer prevention program in outdoor recreation settings: The Hawaii *SunSmart* Program. *Effective Clinical Practice*, 3:53-61, 2000.
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8. Glanz K, Silverio R, Farmer A. Diary reveals sun protective practices. *The Skin Cancer Foundation Journal*, 14:27-28, 86, 1996. *Reprinted as* "Daily diary reveals sun protective practices" in *Primary Care and Cancer*, 17 (5):21-23, 1997.

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tomy and its availability now a in Hawaii, our patients with severe sweaty palms have another effective treatment available.

Why "Watch the Wasabe"? Most people in Hawaii, and indeed around the world, now know to watch the Wasabe and not eat it all at once. In a letter to the editor "Horseradish Horrors: Sushi Syncope" in the Journal of the American Medical Association,[5] a 63-year-old man ate the whole (glob) of wasabe at his first Japanese meal and had vasomotor near-collapse. Among his many symptoms was severe diaphoresis not merely palmar hyperhidrosis

In summary, try conservative methods to treat your severe palmar sweating patients, but because it does impact positively on their quality of life consider referral for transthoracic endoscopic sympathectomy and... watch the wasabe.

References

1. Bates, B. Efficacy of Antiperspirants Delivery Systems in Novel Antiperspirants Treats Axiliary Hyperhidrosis. *Skin and All News* January 2000: 20.
2. Atkins Di. Meisenheimer JL. and Dobson RL. Efficacy of the Dryonic Unit in the Treatment of Hyperhidrosis. *J Am Acad Dermatol* 1987; 16: 828-832.
3. ShelleyWB ,TaiananNY and ShelleyED. Botulinum Toxin Therapy for Palmar Hyperhidrosis. *J Am Acad Dermatol* 1988; 38:227-229.
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